

## IN THE CLAIMS

1. (Currently Amended) An acryl-silicone hybrid impact modifier comprising:

(A) 0.01 to 10 parts by weight of a seed composed of the copolymer comprised of an acryl seed latex, (B) an acryl-silicone hybrid rubber core prepared by condensation reaction of (B)(i) an acryl rubber core and (B)(ii) a silicone rubber core, in the presence of an acid catalyst, and (C) an alkyl methacrylate shell prepared by emulsion graft polymerization reaction,

wherein the acryl seed latex (A) is composed of:

- (i) 60 to 99 parts by weight of a vinyl monomer;
- (ii) 0.5 to 30 parts by weight of a hydrophilic monomer; and
- (iii) 0.5 to 5 parts by weight cross-linking monomer;

wherein the acryl rubber core (B)(i) is composed of (B) 60 to 94 parts by weight of an acrylie-silicone hybrid rubber core comprised of:

- (i) 55.0 to 97.5 parts by weight of an acrylie rubber core; and
- (ii) 2.5 to 45.0 parts by weight of a silicone rubber core;

wherein said acrylie rubber core consists essentially of (a) 97.0 to 99.957.05 to 79.40 parts by weight of an alkyl acrylate of in which the alkyl group has 1 to 8 carbon atoms; and (b) 0.1 to 3.00.43 to 0.60 parts by weight of a cross-linking monomer, based on 0.01 to 10 parts by weight of the acryl seed latex (A); and

wherein said the silicone rubber core (B)(ii) is composed consists essentially of (a) 90.00 to 99.650.98 to 24.50 parts by weight of a cyclic organosiloxane having 3 to 7 rings precursor of one or more selected from the group consisting of octamethylcyclotetrasiloxane, decamethylcyclopentasiloxane, dodecamethylcyclohexasiloxane, and tetramethyltetraphenylcyclotetrasiloxane; (b) 0.1 to 5.00.15 to 0.38 parts by weight of an organosiloxane cross-linking agent having 1 to 4 alkoxy functional groups of one or more selected from the group consisting of tetramethoxysilane, tetraethoxysilane, and triethoxymethylsilane; and (c) 0.25 to 5.00.05 to 0.45 parts by weight of an organosiloxane graft-linking agent having an alkyl acrylate or methacrylate that may be readily radical polymerized with 1 to 3 alkoxy functional group, mercaptane, and 0 to 2 alkyl groups selected from the group consisting of gamma-methacryloylpropyltrimethoxysilane, mercaptopropyl dimethoxymethylsilane, mercaptopropyltrimethoxysilane, and tetravinyltetramethylcyclotetrasiloxane; and

wherein the alkyl methacrylate shell (C) is composed of 6 to 407.5 to 20 parts by weight of shell consisting essentially of alkyl methacrylate, wherein the alkyl group has 1 to 4 carbon atoms.

2. (Canceled)

3. (Previously presented) The acryl-silicone hybrid impact modifier according to Claim 1, wherein said (A) (i) vinyl monomer is one or more kinds of compounds selected from the group consisting of styrene,  $\alpha$ -methylstyrene, vinyl toluene, and 3,4-dichlorostyrene.

4. (Currently Amended) The acryl-silicone hybrid impact modifier of Claim 1, wherein said (A) (ii) hydrophilic monomer is one or more kinds of compounds selected from the group consisting of an alkyl acrylate ~~such as including~~ ethylacrylate, butylacrylate, and 2-ethylhexylacrylate, ~~etc.~~; an alkyl methacrylate ~~such as including~~ methylmethacrylate, and benzylmethacrylate, ~~etc.~~; acrylonitrile; hydroxymethylmethacrylate; and glycidylmethacrylate.

5. and 6. (Canceled)

7. (Previously presented) The acryl-silicone hybrid impact modifier according to Claim 1, wherein said (B) (i) (a) alkyl acrylate is one or more kinds of compounds selected from the group consisting of methylacrylate, ethylacrylate, propylacrylate, iso-propylacrylate, butylacrylate, hexylacrylate, octylacrylate, and 2-ethylhexylacrylate.

8. to 10. (Canceled)

11. (Previously presented) The acryl-silicone hybrid impact modifier according to Claim 1, wherein said (A) (iii) cross-linking monomer and (B) (i) (b) cross-linking monomer is one or more kinds of compounds selected from the group consisting of divinylbenzene, 3-butanediol diacrylate, 1,3-butanediol dimethacrylate, 1,4-butanediol diacrylate, 1,4-butanediol dimethacrylate, allylacrylate, arylmethacrylate, trimethylolpropane triacrylate, tetraethyleneglycol diacrylate, and tetraethyleneglycol dimethacrylate.

12. (Canceled)

13. (Original) The acryl-silicone hybrid impact modifier according to Claim 1, wherein said shell additionally includes 0.1 to 20 parts by weight of an aiding monomer which is one or more kinds of compounds selected from the group consisting of methylacrylate, ethylacrylate, butylacrylate, acrylonitrile, and methacrylonitrile based on the total monomers of the shell of 100 parts by weight.

14. (Original) The acryl-silicone hybrid impact modifier according to Claim 1, wherein the glass transition temperature of said acryl-silicone hybrid rubber core is -120°C to 25°C.

15. (Original) The acryl-silicone hybrid impact modifier according to Claim 1, wherein said acryl-silicone hybrid rubber core has a morphology in which a discrete polyorganosiloxane rubber phase is dispersed locally onto the inner part and surface of a continuous acrylic rubber core.

16-19. (Canceled)

20. (Previously Presented) A vinyl chloride resin composition comprising 80 to 99 parts by weight of a vinyl chloride resin, and 1 to 20 parts by weight of said acryl-silicone hybrid impact modifier of Claim 1.

21. (Canceled)

22. (New) The acryl-silicone hybrid impact modifier according to Claim 1, wherein the acryl seed latex (A) is composed of: (i) 2.23 parts by weight of styrene; (ii) 0.25 part by weight of acrylonitrile; and (iii) 0.02 part by weight divinylbenzene as cross-linking monomer, and wherein the acrylic rubber core (B)(i) is composed of (a) 57.05 to 79.40 parts by weight of an alkyl acrylate of which alkyl group has 1 to 8 carbon atoms; and (b) 0.43 to 0.60 part by weight of a cross-linking monomer.